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Application No.: 10/732,724  
Art Unit 3752

## AMENDMENTS TO THE SPECIFICATION

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A. At page 8, lines 4-21 delete the pending text and replace therewith as follows:

-- Additionally depicted in FIG. 2 is an optional orifice plate 295, further comprising an orifice 296. The optional orifice plate 295 is arranged such that fluid 271, 273 dispensed by at least one of the micromechanical dispensing mechanism 210, 212 is further dispensed through the orifice 296, ~~which dispensing of the fluid 271, 273 through the orifice 296 is depicted in FIG. 2 by reference numbers 271a, 273a.~~

In one embodiment, the optional orifice plate 295 is similar or identical to the orifice plate containing an orifice as depicted in FIG. 1 and described from col. 3, l. 57 to col. 4, l. 54 of U.S. Patent No. 6,378,780 to Edward J. Martens III et al., which patent is incorporated by reference herein, and which patent is hereinafter referred to as the "Martens patent" or simply as "Martens."

Referring still to FIG. 2, several embodiments of the micromechanical dispensing mechanisms 210, 212 are now described in accordance with the current invention.

In one embodiment, one or more of the micromechanical dispensing mechanisms 210, 212 comprises electrostatically-driven membranes, ~~which electrostatically-driven membranes are depicted in FIG. 2 by reference number 210a.~~ In one embodiment, for example, one or more of the present micromechanical dispensing mechanisms 210, 212 comprises a membrane that is similar or identical to the electrostatically-actuated diaphragm 10 of the fluid ejector 100 as described and depicted in the foregoing U.S. Patent No. 6,357,865 to Joel A. Kubby et al., which patent is incorporated herein by reference, and which patent is hereinafter referred to as the "Kubby patent" or simply "Kubby". --

B. At page 9, lines 9-15 delete the pending text and replace therewith as follows:

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-- Referring again to the present FIG. 2, in a further embodiment, one or more of the micromechanical dispensing mechanisms 210, 212 comprises an electrostatically-actuated piston ~~, which electrostatically-actuated piston is depicted in FIG. 2 by reference number 210b~~. In one embodiment, for example, one or more of the present micromechanical dispensing mechanisms 210, 212 comprises a piston that is similar or identical to the electrostatically-actuated piston 110 of the fluid ejector 100 as described in the foregoing U.S. Patent No. 6,367,915 to Arthur M. Gooray et al., which patent is incorporated by reference herein, and which patent is hereinafter referred to as the "Gooray '915 patent." -- .

C. At page 9, lines 32-34 delete the pending text and replace therewith as follows:

-- Again referring to the present FIG. 2, in another embodiment, one or more of the micromechanical dispensing mechanisms 210, 212 comprises magnetically-actuated membranes ~~, which magnetically-actuated membranes are depicted in FIG. 2 by reference number 210c~~ . -- .

D. At page 10, lines 30-32 delete the pending text and replace therewith as follows:

-- Referring again to the present FIG. 2, in another embodiment, one or more of the micromechanical dispensing mechanisms 210, 212 comprises a ballistic aerosol micromechanical dispensing mechanism ~~, which ballistic aerosol micromechanical dispensing mechanism is depicted in FIG. 2 by reference number 210d~~ . -- .

E. At page 11, lines 27-29 delete the pending text and replace therewith as follows:

-- Again referring to the present FIG. 2, in another embodiment, one or more of the micromechanical dispensing mechanisms 210, 212 comprises an arrangement incorporating a thermally-actuated paddle vane ~~, which thermally-actuated paddle vane is depicted in FIG. 2 by reference number 210e~~ . -- .

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F. From page 16, line 30 to page 17, line 16 delete the pending text and replace therewith as follows:

-- In one embodiment of the micromechanical dispensing device 400, one or more of the micromechanical dispensing mechanisms 410, 411, 412, comprises an electrostatically-driven membrane , ~~which electrostatically-driven membrane is depicted in FIG. 4 by reference numbers 410a, 411a and~~ which is substantially similar, or identical to the electrostatically-driven membrane described in the foregoing Kubby patent **as described in connection with FIG. 2 hereinabove .**

In another embodiment of the micromechanical dispensing device 400, one or more of the micromechanical dispensing mechanisms 410, 411, 412, comprises an electrostatically-actuated piston , ~~which electrostatically-actuated piston is depicted in FIG. 4 by reference numbers 410b, 411b and~~ which is substantially similar, or identical to the electrostatically-actuated piston described in the foregoing Gooray '915 patent **as described in connection with FIG. 2 hereinabove .**

In a further embodiment of the micromechanical dispensing device 400, one or more of the micromechanical dispensing mechanisms 410, 411, 412, comprises a magnetically-actuated membrane , ~~which magnetically-actuated membrane is depicted in FIG. 4 by reference numbers 410c, 411c and~~ which is substantially similar, or identical to the magnetically-actuated membrane described in the foregoing Genovese patent **as described in connection with FIG. 2 hereinabove.**

In a further embodiment of the micromechanical dispensing device 400, one or more of the micromechanical dispensing mechanisms 410, 411, 412, comprises a thermally-actuated paddle vane , ~~which thermally-actuated paddle vane is depicted in FIG. 4 by reference numbers 410e, 411e and~~ which is substantially similar, or identical to the thermally-actuated paddle-vane described in the foregoing Silverbrook patent **as described in connection with FIG. 2 hereinabove.**

In yet a further embodiment one of the micromechanical dispensing device 400, or more of the micromechanical dispensing mechanisms 410, 411, 412, comprises a

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ballistic aerosol dispensing mechanism, ~~which ballistic aerosol dispensing mechanism is depicted in FIG. 4 by reference numbers 410d, 411d and~~ which is substantially similar, or identical to the ballistic aerosol dispensing mechanism described in the foregoing Peeters '718 patent as described in connection with FIG. 2 hereinabove. -- .

G. From page 18, line 32 to page 19, line 2 delete the pending text and replace therewith as follows:

-- Additionally depicted in FIG. 4 is an optional orifice plate 495, further comprising an orifice 496. The optional orifice plate 495 is arranged such that fluid 471, 472, 473 dispensed by at least one of the micromechanical dispensing mechanisms 410, 411, 412 is further dispensed through the orifice 496, ~~which dispensing of the fluid 471, 472, 473 through the orifice 496 is depicted in FIG. 4 by reference numbers 471a, 472a, 473a.~~ -- .

H. At page 23, lines 4-23 delete the pending text and replace therewith as follows:

-- In one embodiment of the micromechanical dispensing device 600, the micromechanical dispensing mechanism 610 comprises an electrostatically-driven membrane, ~~which electrostatically-driven membrane is depicted in FIG. 6 by reference number 610a and~~ which is substantially similar, or identical to the electrostatically-driven membrane described in the foregoing Kubby patent as described in connection with FIG. 2 hereinabove.

In another embodiment of the micromechanical dispensing device 600 the micromechanical dispensing mechanism 610 comprises an electrostatically-actuated piston, ~~which electrostatically-actuated piston is depicted in FIG. 6 by reference number 610b and~~ which is substantially similar, or identical to the electrostatically-actuated piston described in the foregoing Gooray '915 patent as described in connection with FIG. 2 hereinabove.

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In a further embodiment of the micromechanical dispensing device 600 the micromechanical dispensing mechanism 610 comprises a magnetically-actuated membrane, ~~which magnetically-actuated membrane is depicted in FIG. 6 by reference number 610c and~~ which is substantially similar, or identical to the magnetically-actuated membrane described in the foregoing Genovese patent as described in connection with FIG. 2 hereinabove.

In a further embodiment of the micromechanical dispensing device 600 the micromechanical dispensing mechanism 610 comprises a thermally-actuated paddle vane, ~~which thermally-actuated paddle vane is depicted in FIG. 6 by reference number 610e and~~ which is substantially similar, or identical to the thermally-actuated paddle-vane described in the foregoing Silverbrook patent as described in connection with FIG. 2 hereinabove.

In yet a further embodiment of the micromechanical dispensing device 600 the micromechanical dispensing mechanism 610 comprises a ballistic aerosol dispensing mechanism, ~~which ballistic aerosol dispensing mechanism is depicted in FIG. 6 by reference number 610d and~~ which is substantially similar, or identical to the ballistic aerosol dispensing mechanism described in the foregoing Peeters '718 patent as described in connection with FIG. 2 hereinabove. -- .

I. At page 25, lines 4-6 delete the pending text and replace therewith as follows:

-- Additionally depicted in FIG. 6 is an optional orifice plate 695, further comprising an orifice 696. The optional orifice plate 695 is arranged such that fluid 671, 672, 673 dispensed by the micromechanical dispensing mechanism 610 is further dispensed through the orifice 696, ~~which dispensing of the fluid 671, 672, 673 through the orifice 696 is depicted in FIG. 6 by reference numbers 671a, 672a, 673a.~~ -- .

J. At page 26, lines 11-30 delete the pending text and replace therewith as follows:

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-- In one embodiment of the micromechanical dispensing device 700, one or more of the micromechanical dispensing mechanisms 710, 711, 712 comprises an electrostatically-driven membrane , ~~which electrostatically-driven membrane is depicted in FIG. 7 by reference number 710a, 711a and~~ which is substantially similar, or identical to the electrostatically-driven membrane described in the foregoing Kubby patent **as described in connection with FIG. 2 hereinabove.**

In another embodiment of the micromechanical dispensing device 700, one or more of the micromechanical dispensing mechanisms 710, 711, 712 comprises an electrostatically-actuated piston , ~~which electrostatically-actuated piston is depicted in FIG. 7 by reference number 710b, 711b and~~ which is substantially similar, or identical to the electrostatically-actuated piston described in the foregoing Gooray '915 patent **as described in connection with FIG. 2 hereinabove.**

In a further embodiment of the micromechanical dispensing device 700, one or more of the micromechanical dispensing mechanism 710, 711, 712 comprises a magnetically-actuated membrane , ~~which magnetically-actuated membrane is depicted in FIG. 7 by reference number 710c, 711c and~~ which is substantially similar, or identical to the magnetically-actuated membrane described in the foregoing Genovese patent **as described in connection with FIG. 2 hereinabove.**

In a further embodiment of the micromechanical dispensing device 700, one or more of the micromechanical dispensing mechanisms 710, 711, 712 comprises a thermally-actuated paddle vane , ~~which thermally-actuated paddle vane is depicted in FIG. 7 by reference number 710e, 711e and~~ which is substantially similar, or identical to the thermally-actuated paddle-vane described in the foregoing Silverbrook patent **as described in connection with FIG. 2 hereinabove.**

In yet a further embodiment of the micromechanical dispensing device 700, one or more of the micromechanical dispensing mechanisms 710, 711, 712 comprises a ballistic aerosol dispensing mechanism , ~~which ballistic aerosol dispensing mechanism is depicted in FIG. 7 by reference number 710d, 711d and~~ which is substantially similar, or identical to the ballistic aerosol dispensing mechanism

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described in the foregoing Peeters '718 patent **as described in connection with FIG. 2 hereinabove.** -- .

K. At page 28, lines 13-16 delete the pending text and replace therewith as follows:

-- Additionally depicted in FIG. 7 is an optional orifice plate 795, further comprising an orifice 796. The optional orifice plate 795 is arranged such that fluid 771 dispensed by one or more of the micromechanical dispensing mechanisms 710, 711, 712 is further dispensed through the orifice 796, ~~which dispensing of the fluid 771 through the orifice 796 is depicted in FIG. 7 by reference number 771a.~~ -- .

L. Delete the pending text from page 28, line 21 to page 33, line 24.

M. Delete the pending text from page 33, line 25 to page 40, line 34.